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least a portion of a first layer attached to at least a portion of a second layer using an adhesive composition. The adhesive composition comprises an atactic polymer having a degree of crystallinity of less than about 20% and a number-average molecular weight between about 1,000 and about 300,000, and an isotactic polymer having a degree of crystallinity of at least about 40% and a number-average molecular weight between about 3,000 and about 200,000. The first layer is a neck-bonded laminate substrate.

Tanzer discloses an absorbent composite comprising a selectively stretchable liquid permeable first substrate layer, a selectively stretchable second substrate layer and pockets of superabsorbent material formed between the first layer and second layer.¹ In one embodiment, the layers may be a neck-bonded laminate of a necked, inelastic nonwoven filament web to an elastic film.² The pockets are defined by attachment means which serves to join the first and second layers to form a laminate. Suitable attachment means include water sensitive adhesives.³ A secondary attachment means can include water insensitive adhesives.⁴

As noted by the Office, Tanzer fails to teach the adhesive composition required in claim 24, which comprises an atactic polymer having a degree of crystallinity of less than about 20%

¹Tanzer specification at page 6, lines 1-5.

²See Tanzer specification at page 3, lines 17-18.

³See Tanzer specification at page 6, lines 15-20.

⁴See Tanzer specification at page 6, lines 26-27.

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and a number-average molecular weight between about 1,000 and about 300,000, and an isotactic polymer having a degree of crystallinity of at least about 40% and a number-average molecular weight between about 3,000 and about 200,000. In an attempt to find each and every element of claim 24 as required by the M.P.E.P. for a determination of *prima facie* obviousness, the Office cites the Hall et al. reference for combination with Tanzer.

Hall et al. disclose a hot-melt adhesive suitable for bonding two materials together such as a corrugated paper medium and a 50-pound kraft paper facer sheet to produce corrugated paper board. The hot-melt adhesive is also suitable for the fabrication of paper cartons.⁵ The adhesive composition comprises 60 to 95 weight percent atactic polypropylene and 5 to 40 weight percent polyethylene or isotactic polypropylene. The atactic polypropylene has a molecular weight of 15,000 to 60,000 and the isotactic polypropylene has a molecular weight of up to about 500,000, and preferably from 85,000 to 95,000.

In order for the Office to show a *prima facie* case of obviousness, M.P.E.P. §2143 requires that the Office must meet three criteria: (1) the prior art reference must teach or suggest all of the claim limitations; (2) there must be some suggestion or motivation, either in the references themselves or

⁵In column 1, lines 36-38, Hall et al. disclose that the hot-melt adhesive composition may be used for bonding wood, paper, plastics, textiles, and other materials. As discussed more fully below, this reference fails to suggest or disclose that the disclosed adhesive composition could be used to bond a portion of a first layer to a portion of a second layer, wherein the first layer is a neck-bonded laminate substrate as required by claim 24.

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in the knowledge generally available to one of ordinary skill in the art, to combine the references, and (3) there must be some reasonable expectation of success. The Office has clearly failed to meet its burden under (2) above, as there is no motivation or suggestion to combine the Tanzer and Hall et al. references to arrive at Applicants' claim 24.

As noted in M.P.E.P. §2142, in establishing obviousness, the Office must show references that teach all of the claimed limitations along with some motivation or suggestion, either in the references themselves or in knowledge generally available to one skilled in the art, to combine the references and arrive at the claimed subject matter.⁶ The mere fact that the references can be combined to arrive at the claimed subject matter does not render the resultant combination obvious, unless the prior art also suggests the desirability of the combination. In re Mill, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). A close reading of the cited references clearly indicates that one skilled in the art would not have been so motivated and, without Applicants' disclosure as a blueprint (which the Office had the benefit of utilizing), such a combination of the Tanzer and Hall et al. references would not have been made.⁷

⁶As further set forth in M.P.E.P. §2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the reference itself, or in the knowledge generally available to one of ordinary skill in the art.

⁷M.P.E.P. §2142 further provides that in order to reach a proper determination under 35 U.S.C. §103(a), the Examiner must step backward in time and into the shoes worn by the

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The Office asserts that Hall et al. provide sufficient motivation to use the adhesive composition of Hall et al. in the absorbent composite of Tanzer due to the desire to produce a composite containing a low-cost adhesive with high performance properties. With all due respect, Applicants submit that there is not a convincing line of reasoning as to why the combination of these references would have been obvious. Specifically, why would one skilled in the art pick Hall et al.'s composition over all of the other low-cost high performing compositions?

Tanzer simply teaches that neck-bonded laminates can be bonded adhesively to another material with a hot melt adhesive; and even provides one commercially acceptable adhesive. The Tanzer reference fails to provide a reason why one skilled in the art would choose one adhesive over the other. The Hall et al. reference is directed to a hot-melt adhesive suitable for bonding two materials together such as a corrugated paper medium and a 50-pound kraft paper facer sheet to produce corrugated paper board. While the adhesive of Hall et al. can also be used for bonding wood, paper, plastics, textiles, and other materials, why would one skilled in the art look to the Hall et

hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. Knowledge of Applicants' disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences." The tendency to resort to "hindsight" based upon Applicants' disclosure is often difficult to avoid due to the very nature of the examination process. However, as stated by the Federal Circuit, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art. Grain Processing Corp. v. American-Maize-Products, Co., 840 F.2d 902, 904 (Fed. Cir. 1988).

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al. adhesive over any other hot melt adhesive for bonding the necked, nonwoven layer and bottom layer of the neck-bonded laminate of Tanzer? No where in Hall et al. is it disclosed to use the adhesive composition for neck-bonded laminate substrates.

With all due respect, it appears that the Office has used impermissible hindsight analysis and reconstruction when combining the Tanzer reference with the Hall et al. reference. Notably, it would be clear to one skilled in the art reading Tanzer that a low-cost adhesive with high performance properties be used to bond the substrates described therein. There are, however, a myriad of low-cost, high performance adhesives in the art, many of which are used in diapers and other absorbent substrate applications. Hall et al. do not even mention such use. What is important is that there is no motivation or suggestion to use the composition of Hall et al. over any of the other enormous number of low-cost adhesives described in the art, which have high performance properties.

Moreover, Applicants note that in the previous Office action dated August 13, 2003, claims 70-72 were rejected under 35 U.S.C. §103(a) as being unpatentable over the same Tanzer and Hall et al. references in view of a third reference, the Wang reference (U.S. 6,329,468). As noted above, all of the previously set forth rejections have been withdrawn. Claim 70, at the time of the response to the August 13, 2003 Office action (Amendment B filed November 13, 2003), was similar to the currently pending claim 24 and further required the second layer to be a neck-bonded laminate substrate. As such, currently pending claim 24 is patentable over the Tanzer and Hall et al.

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references for the same reasons that claim 70 was patentable over the Tanzer and Hall et al. references in view of the Wang reference set forth in Amendment B filed November 11, 2003. For the convenience of the Office, the arguments made in Amendment B are set forth below:

M.P.E.P. §2143.01 states that the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. Additionally, where the teachings of the prior art conflict, the Office must weigh the suggestive power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. A close reading of the Wang reference, which cannot simply be discounted by the Office, clearly indicates that one skilled in the art would be guided away from combining the Tanzer and Hall et al. references to arrive at Applicants' invention.

Wang teaches the use of a single block blend polymeric material (referred to as a flexible polyolefin) which has segments or blocks of regular isotactic structure that are interspersed by segments or blocks of atactic structure, along with at least two other components. Noting that the flexible polyolefin has a "unique" molecular structure, Wang notes numerous improvements as compared to conventional atactic and isotactic polymers (which are disclosed by Hall et al. and specifically relied upon by the Office). Additionally, and critically, Wang discusses, in numerous paragraphs in columns three and four, the shortcomings and limitations of hot-melt

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adhesives comprising atactic and isotactic polymers in place of the flexible polyolefins. For example, in column 3, lines 37-47 Wang states that hot-melt adhesives comprising atactic polypropylene generally have poor cohesive strength, poor heat resistance, low elevated temperature peel and low shear values. Significantly, Wang further states:

"[Atactic polypropylenes] have not found much use in disposable nonwoven applications where a combination of high bond strength at very low coating weight and easy processability by spray techniques mentioned above is required. [Atactic polypropylene] based adhesives usually lack such capability" Column 3 lines 42-47.

Further, at column 4 lines 13-19 Wang states:

"As noted above, [atactic polypropylenes] differ significantly from [flexible polyolefins] used in the present invention in both molecular structure, average molecular weight, physical and mechanical properties. These prior art [atactic polypropylene] adhesives are formulated for applications other than for disposable nonwovens products and usually lack sprayability. Emphasis added.

Additionally, at column 4 lines 55-60 Wang states:

"The compositions of the present invention have overcome the shortcomings of the prior art amorphous poly-alpha-olefins and block copolymer based adhesives and provide excellent heat stability, improved cohesive strength, low viscosity, and good adhesion to a variety of substrates and good processability with conventional coating equipment."

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One skilled in the art and reading the Wang reference would actually be taught or guided away from utilizing the adhesive composition set forth in claim 24 of the present invention and from looking at any reference that suggests or teaches a combination of atactic polypropylene and isotactic polypropylene as Hall et al. do.⁷ Wang clearly sets forth the shortcomings of hot-melt adhesives comprising isotactic polypropylene and atactic polypropylene and specifically states that such compositions are formulated for applications other than for disposable nonwoven products because such compositions lack basic characteristics required for suitable use, such as thermal stability and cohesive strength. Because Wang teaches squarely away from the teachings in Hall et al. of a hot-melt adhesive comprising atactic polypropylene, one skilled in the art would not, and could not, have been properly motivated to look at the Hall et al. reference after reading the Wang reference.

There is simply no motivation to combine the Tanzer and Hall et al. references to arrive at the instant claim 24, and claim 24 cannot be said to be obvious in view of the cited references.

Claims 25-33 are dependent upon claim 24 and are patentable for the same reasons as claim 24 set forth above, as well as for the additional elements they require.

⁷Applicants note that a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983).

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Claim 70 is similar to claim 24 and is directed to a laminate structure comprising a first neck-bonded laminate substrate and a second neck-bonded laminate substrate, wherein the first neck-bonded laminate substrate is bonded to the second neck-bonded laminate substrate with an adhesive composition. The adhesive composition comprises an atactic polymer having a degree of crystallinity of less than about 20% and a number-average molecular weight of from about 1,000 to about 300,000 and an isotactic polymer having a degree of crystallinity of at least about 40% and a number-average molecular weight of from about 3,000 to about 200,000.

Both Tanzer and Hall et al. are discussed above.

As stated above, Tanzer fails to disclose an adhesive composition comprising an atactic polymer having a degree of crystallinity of less than about 20% and a number-average molecular weight of from about 1,000 to about 300,000 and an isotactic polymer having a degree of crystallinity of at least about 40% and a number-average molecular weight of from about 3,000 to about 200,000. Further, as stated above, one skilled in the art would not and could not find motivation to combine the adhesive composition of Hall et al. with the substrates of Tanzer to arrive at instant claim 70. As such, claim 70 is not obvious over the cited references.


Claims 71-82 are dependent upon claim 70 and are patentable for the same reasons as claim 70 set forth above, as well as for the additional elements they require.

In view of the above, Applicants respectfully request favorable reconsideration and allowance of all pending claims. The Commissioner is hereby authorized to charge any fee

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deficiency in connection with this Letter To Patent And
Trademark Office to Deposit Account Number 19-1345 in the name
of Senniger, Powers, Leavitt & Roedel.

Respectfully Submitted,


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